

REMARKS

The Official Action mailed November 3, 2003, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to March 3, 2004. Accordingly, Applicants respectfully submit that this response is being timely filed.

The Applicants notes with appreciation the consideration of the Information Disclosure Statements filed on April 26, 2001, and May 17, 2002.

Claims 1-15 are pending in the present application, of which claims 1-4, 13 and 14 are independent. Claims 1-3, 13 and 14 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action rejects claims 1-15 as obvious based on the combination of U.S. Patent No. 5,773,325 to Teramoto, U.S. Patent No. 6,313,017 to Varhue, U.S. Patent No. 6,221,766 to Wasserman, U.S. Patent No. 5,181,985 to Lampert et al., and "Silicon Processing for the VLSI Era," Volume 1: Process Technology, page 516, by Wolf et al. The Applicants respectfully traverse the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of

one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Independent claims 1-3, 13 and 14 have been amended to clarify that an oxide film is formed on a surface of an insulating film (e.g., a gate insulating film, a base insulating film) and that the insulating film is etched to remove the oxide film and contaminant impurities. Independent claim 4 also recites the above-referenced features. Teramoto does not teach or suggest that an oxide film is formed on a surface of an insulating film and that the insulating film is etched to remove the oxide film and contaminant impurities. Varhue, Wasserman, Lampert and Wolf do not cure the deficiencies in Teramoto. Lampert is relied upon by the Official Action to allegedly teach rinsing “wafer surfaces with pure water containing ozone” (page 4, Id.) Wasserman, Varhue and Wolf appear to disclose cleaning a surface of a silicon wafer (pages 3-5, Id.). However, Teramoto, Varhue, Wasserman, Lampert and Wolf, either alone or in combination, do not teach or suggest a process for cleaning a surface of an insulating film which is formed over a silicon wafer or a semiconductor film.

Since Teramoto, Varhue, Wasserman, Lampert and Wolf do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



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